Internationally Renowned Artificial Organs Expert Joins HepaLife™.

HepaLife's patented PICM-19 cell line, bioreactor, and HepaDrive™ perfusion system demonstrate success as an integrated artificial liver device system..

Boston, MA – August 21, 2007 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625), developing the first-of-its-kind artificial liver device, is pleased to announce the addition of Aly El-Banayosy, MD, to the Company's Scientific Advisory Board.

With over 20 years of experience on the forefront of artificial organs and circulatory care, and heading the world's most active ventricular assist device program (VAD), Dr. Banayosy is a widely-published, internationally renowned expert and lecturer in the treatment of heart and organ failure.

"I'm honored to welcome Dr. Banayosy to the HepaLife team," stated Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc. "Dr. Banayosy brings us extensive patient management experience in artificial organ-related technologies and intensive care medicine. His expertise in treating patients with heart, liver and kidney problems with artificial organs, implantable and extracorporeal, is extremely valuable for the development process of our bioartificial liver."

"Despite advances in medical therapy and technology, the prognosis of patients with persistent multiple organ failure, often following a cardiogenic shock remains poor. Mortality rates are as high as 80%. Patients with hypoxic liver failure after such cardiogenic shock after cardiac surgery are expected to benefit significantly from artificial liver support," explained
Dr. Banayosy. "The HepaLife bioartificial liver is an exciting and promising approach to a huge clinical need. I am very happy to assist in making this technology available to patients."

In the United States, liver diseases and cirrhosis rank as the seventh leading cause of death among adults between the ages of 25 and 64, and an estimated 30 million Americans - one in every 10 - are or have been afflicted by liver diseases, according to the American Liver Foundation. 18,000 people are on the waiting list for a liver transplant in the USA, 1,300 have died while waiting.

In response, HepaLife is working to develop the world's first-of-its-kind bioartificial liver device, an actively rising market expected to achieve record growth, second only to artificial kidney support and more than double the expected $1.31 billion artificial heart market.

Forecast data from a newly issued study on the worldwide market for artificial organs projects the artificial liver device market to exceed $2.7 billion in the upcoming 36 months.

Despite a promising commercial outlook, current artificial liver technologies have not yet lived up to their full potential as a consequence of problems relating to their inability to grow liver cells quickly and safely, and with inconsistent results from filtering devices. Culturing and maintaining their cell systems has proven difficult; once removed from the body, their cells soon lose normal functionality.

In contrast, HepaLife's patented PICM-19 cells can survive at room temperature, retain their desired properties even after years in continuous culture, and unlike other cells, are not tumor-causing, a feature critical to nutrient metabolism research.

In early tests, HepaLife's patented PICM-19 cell line, bioreactor, and HepaDrive™ perfusion system have demonstrated early success as an integrated system, successfully replicating the liver's key function – removal of toxic ammonia and synthesis of urea.

Researchers have also demonstrated that HepaLife's PICM-19 cells mimic other key liver responses such as expressing high levels of CYP-450 enzymes. Most impressively, HepaLife's PICM-19 liver cells have outperformed the world's most widely used human liver cell line (HepG2-C3A), and are the only cells of their kind in the world able to produce substantial amounts of urea in an in-vitro system, a highly-important function in the removal of toxic ammonia from the bloodstream.

The HepaLife™ Bioartificial Liver device consists of three basic components: (1) a plasma filter, separating the patients blood into blood plasma and blood cells; (2) the bioreactor, a unit filled with PICM-19 cells which biologically mimic the liver's function; and (3), the HepaDrive™, a perfusion system for pumping the patient's plasma through the bioreactor while controlling gas supply and temperature for best possible performance of the cells.

Aly El-Banayosy, MD: Physician, Clinical Researcher and Artificial Organs Expert

Aly El-Banayosy, MD, is an internationally renowned authority in artificial organ support. With more than 20 years of clinical expertise of managing patients with cutting-edge circulatory support systems, his research focus is mechanical circulatory support, cell therapy and liver replacement therapy.

Dr. Banayosy is a widely-published clinical researcher and investigator of more than 20 clinical trials in the field of heart, liver and kidney failure. Among his numerous publications and lectures he also published on the first use of the molecular adsorbent recirculating system technique on patients with hypoxic liver failure after cardiogenic shock.

At the Heart and Diabetes Center North Rhine-Westphalia in Bad Oeynhausen, Germany,
Dr. Banayosy currently is the head of the world's most-active VAD program and Director of the Intensive Care Unit for Thoracic and Cardiovascular Surgery.

The Heart and Diabetes Center North Rhine-Westphalia in Bad Oeynhausen, Germany, is a world-leading institution in the fields of cardiac, circulatory and metabolic diseases. With over 6,000 operations per annum, the center is at the very forefront of its international peers and is the leading university hospital in Europe. Facilities around the world, including new heart centers in Japan and Russia, have been modeled on clinical facilities at Bad Oeynhausen.

Dr. Aly El-Banayosy received his MD from the Ruhr University of Bochum, Germany.
Dr. Banayosy is member of 11 medical societies including the American and the European Society for Artificial Internal Organs and the Society of Critical Care Medicine. He is Program Director of the joint EUMS (European Mechanical Support Summit) with Pitié Salpêtrière, Paris, France.

ABOUT HEPALIFE TECHNOLOGIES, INC.

HepaLife Technologies, Inc. (OTCBB: HPLF - News; FWB: HL1) (WKN: 500625) is a biotechnology company focused on the identification and development of cell-based technologies and products.

Current cell-based technologies under development by HepaLife include 1) the first-of-its-kind artificial liver device, 2) proprietary in-vitro toxicology and pre-clinical drug testing platforms, and 3) novel cell-culture based vaccine production to protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 virus.

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